Dee May
Vice President
Federal Regulatory

verizon

1300 I Street, NW, Suite 400 West
Washington, DC 20005

Phone 202 515-2529
Fax 202 336-7922
dolores.a.may@verizon.com

May 17, 2004

Ex Parte

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW, Portals
Washington, DC 20554

RE: **Section 251 Unbundling Obligations for Incumbent Local Exchange Carriers, CC Docket No. 01-338; Implementation of Local Competition Provision of the Telecommunications Act of 1996, CC Docket No. 96-98; Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147**

Dear Ms. Dortch:

Verizon is requesting the attached documents be placed on the record in the above proceeding. The attachments are being submitted to provided additional authorities for two points previously addressed by Verizon's various filings: 1) that any evaluation of competitive conditions in the broadband market must take into account all potential providers including emerging technologies; and 2) there is no separate wholesale market for broadband services. The first attachment is an ex parte filed by Verizon on November 13, 2003 dealing with wholesale market issues and the second is a list of authorities. If you have any questions, please feel free to call me at (202) 515-2529.

Sincerely,

Dee May

cc: Michelle Carey
Jeffrey Dygert
Linda Kinney
Tom Navin
Austin Schlick
John Stanley

Dee May
Assistant Vice President – Federal Affairs

1300 I Street, NW
Suite 400 West
Washington, DC 20005
(202) 515-2529
(202) 336-7922 (fax)

November 13, 2003

Ex Parte

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Broadband Proceedings, WC Docket Nos. 01-337, 02-33, 98-10, 95-20

Dear Ms. Dortch:

Some parties have argued that the Commission should define a separate "wholesale" market for broadband services provided to ISPs, and should find that local telephone companies enjoy a monopoly over that market solely by virtue of the fact that they alone have previously been required to provide such wholesale services. They are wrong. It has been black-letter law for more than half a century that a relevant product market must be defined to include *all* providers, including vertically integrated providers such as the dominant cable modem providers. The Commission itself has consistently applied that bedrock principle to reject attempts to manufacture artificially separate wholesale market definitions.

Nor is there any plausible basis for concluding that local telephone companies could exercise market power in the provision of broadband services to any separate geographic markets or to any discrete customer segment. For mass-market customers, cable modem services are far more widely available than the DSL services provided by local telephone companies, and are increasingly available to the small-business community that, until recently, has not been the focus for either DSL or cable. And a number of other technologies – including satellite, fixed wireless, third-generation ("3G") wireless, and Wi-Fi – provide still further competition today, and the prospect of even greater competition in the future. Under these circumstances, imposing Title II obligations on one (and only one) service provider would not only be contrary to decades of established antitrust jurisprudence, but also would be affirmatively counterproductive and would jeopardize the continued development of the broadband market on a competitive basis.

A. There Is No Separate Wholesale Market for Broadband Services in Which Local Telephone Companies Could Exercise Market Power.

1. A correctly defined economic product market must include *all* providers, including vertically integrated firms, as well as any likely future entrants.

It is well-settled as a matter of antitrust law and economic theory that, in defining an economic product market, it is necessary to take into consideration *all* existing providers in that market, including vertically integrated firms, as well as likely future entrants.

The *Horizontal Merger Guidelines* issued jointly by the U.S. Department of Justice and Federal Trade Commission require that each Agency's identification of firms that participate in the relevant market begin with all firms that currently produce or sell in the relevant market, including "vertically integrated firms to the extent that such inclusion accurately reflects their competitive significance in the relevant market." *Id.* § 1.31. "In addition, the Agency will identify other firms not currently producing or selling the relevant product in the relevant area as participating in the relevant market if their inclusion would more accurately reflect probable supply responses." *Id.* § 1.32. These so-called "uncommitted supply responses" are included in the relevant market whether they come about "by the switching or extension of existing assets to production or sale in the relevant market; or by the construction or acquisition of assets that enable production or sale in the relevant market." *Id.*

The leading treatise on antitrust law, by Prof. Areeda et al., likewise emphasizes repeatedly that self-suppliers that can easily switch production to serve other customers must be considered part of the relevant market. *See*, *e.g.*, 2A Phillip E. Areeda, *et al.*, *Antitrust Law* ¶ 423, at 81-82 (2002). This is because, as a matter of economics, "a defendant dominating industry output – or hoping to do so – cannot raise prices to monopoly levels by reducing output when its rivals have a large volume of efficient excess capacity that can quickly generate additional and readily saleable output." *Id.* ¶ 535c, at 221. Areeda further emphasizes that, even where sales, rather than capacity, is used as the relevant benchmark, self-supply – so-called "captive sales" or "captive output" – must be considered part of the market "even though it is not sold as such." *See id.* ¶ 535e, at 225-26. As he explains, if an alleged monopolist attempted to raise its prices to monopoly levels, "[t]he higher . . . price may induce an integrated firm to expand its . . . production – to supply others in direct competition with the alleged monopolist." *Id.* "Hence, captive output constrains the defendant whether or not the integrated firms sell" to other retail providers the inputs that the vertically integrated firm uses for its own retail offerings. *Id.* Thus, "the integrated firm's . . . output belongs in the market." *Id.*

In the landmark *Alcoa* case, Judge Learned Hand applied these principles in holding that Alcoa's entire aluminum ingot production should be included in the relevant market, regardless of whether that production was sold to independent companies that used the ingot as an input in fabricating other products, or whether Alcoa used the production to fabricate such products itself. *See United States v. Aluminum Co. of Am.*, 148 F.2d 416, 424-25 (2d Cir. 1945) ("*Alcoa*"). As Judge Hand explained, even though "[t]hat part of its production which 'Alcoa' itself fabricates does not of course ever reach the market as ingot . . . , the ingot fabricated by 'Alcoa' necessarily

had a direct effect upon the ingot market," because "[a]ll ingot – with trifling exceptions – is used to fabricate intermediate, or end, products; and therefore all intermediate, or end, products which 'Alcoa' fabricates and sells, pro tanto reduce the demand for ingot itself." *Id.* at 424. In the half-century since the *Alcoa* decision, other courts consistently have applied the same principles in similar circumstances.[1]

2. The Commission itself has consistently applied these same principles, and has refused to define artificial "wholesale" markets under conditions such as those present here.

As in the proceedings here, on numerous prior occasions the Commission has been asked to define artificially separate markets for wholesale services in order to attribute providers of those services with market power that they do not possess when the market is properly defined to include all relevant suppliers. In each of these prior instances, the Commission has rejected such claims, adhering instead to the same antitrust principles that the federal antitrust agencies and the courts have consistently applied.

In its *Fourth CMRS Order*, the Commission rejected requests by wireless resellers to place switches between the switches operated by facilities-based wireless providers and the switches of wireline local exchange carriers or interexchange carriers. The Commission reasoned that there was no need to impose such an obligation – which, in effect, would have required facilities-based wireless providers to piece-out and begin offering on a wholesale basis portions of their network – given the extensive competition among integrated facilities-based providers of wireless services. *See Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services*, Fourth Report and Order, 15 FCC Rcd 13523, ¶ 20 (2000) ("*Fourth CMRS Order*"); *id.* ¶ 22 (explaining that the resellers' request would "inevitably lead to

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[1] *See*, *e.g.*, *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 389 (1999) (faulting the Commission for failing to consider carriers that self-provide facilities in evaluating competitive alternatives); *Rothery Storage & Van Co. v. Atlas Van Lines, Inc.*, 792 F.2d 210, 218 (D.C. Cir. 1986) ("[T]he capability of other production facilities to be converted to produce a substitutable product is referred to as the cross-elasticity of supply. The higher [this] cross-elasticit[y], the more likely it is that similar products . . . are to be counted in the relevant market."); *Calnetics Corp. v. Volkswagen of Am., Inc.*, 532 F.2d 674, 691 (9th Cir. 1976) (production cross-elasticity must be considered when defining product market); *AD/SAT v. Associated Press*, 181 F.3d 216, 227 (2d Cir. 1999) ("Where there is cross-elasticity of supply, a would-be monopolist's attempt to charge supracompetive prices will be thwarted by the existence of firms willing to shift resources to producing the product, thereby increasing supply and driving prices back to competitive levels."); *Rebel Oil Co. v. Atlantic Richfield Co.*, 51 F.3d 1421, 1436 (9th Cir. 1995) ("[D]efining a market on the basis of demand considerations alone is erroneous . . . . A reasonable market definition must also be based on 'supply elasticity.'"); *Yoder Bros. v. California-Florida Plant Corp.*, 537 F.2d 1347, 1367-68 (5th Cir. 1976) (ability of growers to switch to produce different types of flowers precludes a chrysanthemum-only market); *FTC v. Owens-Illinois, Inc.*, 681 F. Supp. 27, 47 (D.D.C.) (ease with which suppliers could shift production among types of glass bottles undercut limitation of market to certain end users), *vacated as moot*, 850 F.2d 694 (D.C. Cir. 1988); *In re ITT*, 104 F.T.C. 280, 411 (1984) (captive bakers included in market with wholesale bakers because captives could readily divert production to other retail groceries in response to an increase in wholesale baker prices); *United States v. Waste Mgmt., Inc.*, 743 F.2d 976, 983 (2d Cir. 1984) (finding that market for nonresidential solid waste was not limited to Dallas but also included firms from nearby Fort Worth, who could easily supply Dallas market if such service became profitable); *SBC Communications Inc. v. FCC*, 56 F.3d 1484, 1493-94 (D.C. Cir. 1995).

unbundling of the facilities-based provider's network"). The Commission explained that, "to the extent that resale switch interconnection is an economically attractive way of providing CMRS service, we anticipate that the increasing degree of CMRS competition should provide incentives for facilities-based CMRS providers to agree to switch interconnection to increase their revenues." *Id.* ¶ 20.

The Commission also has applied these same principles in its analysis of the long-distance market. In approving the AT&T/McCaw merger, for example, the Commission rejected arguments that there was a separate market comprised of long-distance carriers that served wireless customers. The FCC instead found that the relevant market included *all* long-distance carriers, including those providing only wireline long-distance service, since these carriers could easily serve wireless customers as well, even if they were not currently doing so. *See Applications of Craig O. McCaw and AT&T Co. for Consent to Transfer Control*, Memorandum Opinion and Order, 9 FCC Rcd 5836, ¶¶ 13-14 (1994). The D.C. Circuit upheld the Commission's ruling, holding that "[i]t is of little consequence that consumers have no good substitutes if *producers* can immediately respond to a firm's price increase by switching production to that firm's products," and that "whatever market definition is employed, relative ease of entry by other firms should always be taken into account. The one course that would be clearly wrong would be to define the market as A alone while ignoring the ease of entry from B producers." *SBC Communications*, 56 F.3d at 1493 (internal quotation marks omitted).

In addition to repeatedly defining markets to encompass all relevant existing providers, including vertically integrated firms, the Commission also has included all likely future entrants in the relevant market. The Commission has stated, for example, that the proper analysis must "examine not just the markets as they exist today," but must also take account of "future market conditions," including "technological and market changes, and the nature, complexity, and speed of change of, as well as trends within, the communications industry."[2] In the broadband context, the Commission has already recognized that there are numerous new platforms and technologies entering the market, such as 3G wireless, satellite, power lines, and others, and that the "preconditions for monopoly appear absent." *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, Third Report, 17 FCC Rcd 2844, ¶¶ 79-88 (2002) ("*Third*

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[2] *Applications of NYNEX Corporation, Transferor, and Bell Atlantic Corporation, Transferee, for Consent to Transfer Control of NYNEX Corporation and Its Subsidiaries*, Memorandum Opinion and Order, 12 FCC Rcd 19985, ¶¶ 3, 7, 41 (1997) ("*Bell Atlantic/NYNEX Merger Order*"); *Applications of Teleport Communications Group Inc., and AT&T Corp., Transferee, For Consent to Transfer of Control of Corporations Holding Point-to-Point Microwave Licenses and Authorizations to Provide International Facilities-Based and Resold Communications Services*, Memorandum Opinion and Order, 13 FCC Rcd 15236, ¶ 19 n.65 (1998); *Applications for Consent to the Transfer of Control of Licenses from Comcast Corporation and AT&T Corp. to AT&T Comcast Corporation*, Memorandum Opinion and Order, 17 FCC Rcd 23246, ¶ 27 (2002); *see also Applications of Ameritech Corp., Transferor, and SBC Communications Inc., Transferee, For Consent to Transfer Control*, Memorandum Opinion and Order, 14 FCC Rcd 14712, ¶ 98 (1999); *Application of WorldCom, Inc. and MCI Communications Corp. for Transfer of Control of MCI Communications Corp. to WorldCom*, Memorandum Opinion and Order, 13 FCC Rcd 18,025 ¶¶ 19-20 (1998); *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from MediaOne Group, Inc., to AT&T Corp.*, Memorandum Opinion and Order, 15 FCC Rcd 9816, ¶ 11 (2000); *FCC v. RCA Communications, Inc.*, 346 U.S. 86, 96-97 (1953); *FCC v. WNCN Listeners Guild*, 450 U.S. 582, 594-95 (1981).

Advanced Services Report"); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability*, Report, 14 FCC Rcd 2398, ¶ 48 (1999).

3. Applying these principles here demonstrates that there is no separate wholesale market for broadband services in which local telephone companies could exercise market power, and that there is no valid concern that ISPs and other content providers will somehow be unable to reach their customers if the Commission eliminates the requirement that local telephone companies provide wholesale services to such ISPs.

Under the well-settled principles described above, the Commission must define the relevant market in this case to include all current and likely future providers of broadband services, without regard to whether such providers are offering service only on an integrated basis or are providing services on a wholesale basis as well.

First and foremost, this means that the Commission must include cable modem providers in any relevant market for mass-market customers. Like the defendant in the *Alcoa* case, for example, cable modem operators are the dominant providers of broadband services, but operate primarily on a vertically integrated basis. These cable operators nonetheless have the ability to use their capacity to provide services at wholesale, and, therefore, constrain the behavior of competing DSL providers that do provide wholesale service. Thus, the fact that the cable operators use part or all of their transmission facilities for their own broadband services, and that such facilities do not "ever reach the market," is irrelevant; such facilities still have a "direct effect" on the broadband market because all transmission facilities are used "to fabricate intermediate, or end, products; and therefore all intermediate, or end, products which" such cable operators provide themselves reduce the demand for the underlying facilities over which those services are provided. *Alcoa*, 148 F.2d at 424-25.

The Commission also must define any relevant market for mass-market customers to include other sources of competition, including satellite and fixed wireless providers, as well as rapidly emerging technologies such as broadband over power lines ("BPL"), 3G wireless, and Wi-Fi. As Chairman Powell has noted, "'[t]he development of multiple broadband-capable platforms – be it power lines, Wi-Fi, satellite, laser or licensed wireless – will transform the competitive broadband landscape.'"[3] The Commission itself has already recognized that these technologies provide a growing competitive alternative in the provision of broadband services, and are poised to provide still further competition in the future.[4] In the *Triennial Review Order*, for example, the Commission held that "the fact that broadband service is actually available through another network platform *and may potentially be available through additional platforms*

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[3] R. Mark, *Broadband over Power Lines: FCC Plugs In*, Internetnews.com (Apr. 23, 2003), *at* http://dc.internet.com/news/article.php/2195621.

[4] *See*, *e.g.*, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, CC Docket Nos. 01-338, *et al.*, FCC 03-36, ¶ 263 (rel. Aug. 21, 2003) ("*Triennial Review Order*") ("[T]he Commission also has acknowledged the important broadband potential of other platforms and technologies, such as third generation wireless, satellite, and power lines.") (citing *Third Section 706 Report 2002*, 17 FCC Rcd 2844, ¶¶ 79-88 (2002)).

helps alleviate any concern that competition in the broadband market may be heavily dependent upon unbundled access." *Triennial Review Order* ¶ 263 (emphasis added). And it is particularly critical to take account of these alternatives given that the broadband market is still "in the earliest stages" and is evolving rapidly. *Bell Atlantic/NYNEX Merger Order* ¶¶ 40-41. As one legal scholar has noted in making this very point, "[e]xplosive growth of the kind that the broadband transport industry is currently undergoing can render the network externalities largely irrelevant," and enable new entrants to make rapid gains in the market.[5]

Once the Commission properly defines the relevant market to include dominant cable modem providers as well as other alternative technologies, there is no valid concern that ISPs will somehow be unable to reach their customers if the Commission eliminates the requirement that local telephone companies provide wholesale services to such ISPs. The role of the ISP in the broadband market is primarily one of supplying content.[6] This means that the major providers of broadband access services, including local telephone companies, have strong business incentives to provide consumers access to these ISPs. If a broadband provider fails to provide its customers access to a broadband ISP that is offering valuable content, consumers would flock to competing broadband platforms that did make such content available. And even if local telephone companies decided to stop providing wholesale access to ISPs despite the fact that consumers valued access to those ISPs – which is a far-fetched assumption given that doing so would run contrary to the telco's interests – other providers in the market, such as cable modem providers, would quickly step in to fill the gap. Moreover, the mere threat of this occurring would deter the local telco from taking the step of denying access to the ISP in the first

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[5] *See* C. Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 Yale J. on Reg. 171, 280 (Winter 2002) ("As Stan Liebowitz and Stephen Margolis have observed, 'If a market is growing rapidly, the number of users who have made commitments to any standard is small relative to the number of future users.' In such cases, the fact that a particular firm may currently dominate a market is of little consequence. People concerned about lock-in will focus on the size of the network that will exist in the future, not the size of the one that exists today.") (quoting S.J. Liebowitz & S. Margolis, *Should Technology Choice Be a Concern of Antitrust Policy*, 9 Harv. J.L. & Tech. 283, 310, 312 (1996)) (footnotes omitted); *see also id.* (citing M. Katz & C. Shapiro, *Product Introduction with Network Externalities*, 40 J. Indus. Econ. 55, 73 (1992) (concluding that exponential market growth effectively prevents excess inertia)).

[6] This is true for at least two reasons. First, the technological role performed by the ISP in a narrowband connection is usurped by the equipment that broadband providers use to provide broadband services – the DSLAM in the case of local telcos and the Cable Modem Termination System (CMTS) in the case of cable operators. Second, it is part of a natural evolution of ISPs that was occurring in the narrowband world – where the major ISPs such as AOL and MSN distinguished their offerings primarily by their unique content – and that evolution has accelerated in the broadband world, where the main ISPs are now attempting the same strategy. For example, after years of failed attempts at reselling other carriers' DSL and cable modem service, AOL has recently adopted a "Bring Your Own Access" strategy to market unique broadband content that is available to any user with broadband access to the Web. *See*, *e.g.*, AOL Time Warner Press Release, *America Online Launches AOL for Broadband* (Mar. 31, 2003). Other ISPs – including Earthlink – have announced similar strategies. *See*, *e.g.*, C. Barrera Diaz, *Earthlink Loss Widens but Revenue Climbs*, Reuters (Apr. 22, 2003) (Gary Betty, Earthlink: "we are likely to package a BYOA product . . . before the end of the year. We won't be left out."); J. Hu, *AOL's Broadband Crusade*, CNet News (Mar. 30, 2003) ("Microsoft and Yahoo, have signaled plans to launch their own standalone subscription packages as a way to lure broadband users to their services."), *at* http://news.com.com/2100-1032-994629.html. This is also the model that Internet giants like Yahoo have adopted, bypassing completely the model of the narrowband ISP. *See id.*

place. As Areeda puts it, even though cable operators may not be providing wholesale access to their networks today, a provider cannot "reduce[] output when its rivals have a large volume of efficient excess capacity that can quickly generate additional and readily saleable output." Areeda, *et al.*, *Antitrust Law* ¶ 535c, at 221. Rather, as the Commission found in the *Fourth CMRS Order*, "the increasing degree of [broadband] competition should provide incentives for facilities-based [broadband] providers to agree to" provide wholesale access "to increase their revenues." *Fourth CMRS Order* ¶ 20. Finally, even if a broadband provider wanted to deny access to a content provider, it is hard to imagine that it could do so successfully and without detection given the ability of a broadband ISP to make its content available anywhere on the Internet. Indeed, we are unaware of any examples of ILEC DSL providers attempting to degrade the access that consumers receive to any unaffiliated website.

B. There Are No Separate Geographic Markets in Which Local Telephone Companies Could Exercise Market Power in the Provision of Broadband Services.

Just as local telephone companies do not possess market power on a national scale in any relevant broadband market for mass-market customers, there are no discrete geographic markets in which they can exercise market power. To the contrary, in the overwhelming majority of areas where DSL service is now available, there is competition from cable modem providers and other actual and likely future alternatives such as satellite and fixed wireless providers, as well as from emerging technologies such as BPL, 3G wireless, and Wi-Fi.

It is beyond dispute that cable modem service is, by a significant margin, the most widely available and widely used broadband access technology among mass-market customers today. *See Triennial Review Order* ¶ 262 ("[C]able modem service is the most widely used means by which the mass market obtains broadband service."). Cable modem service is now available to between 85 and 90 million homes – between 77 and 82 percent of U.S. households – and there are now more than 12 million cable modem subscribers.[7] By contrast, DSL is available to between 65 and 75 million homes – between 60 and 68 percent of U.S. households – and there are approximately 6 million DSL subscribers.[8] And, as the Commission has found, "the gap between cable modem and ADSL subscribership continues to widen." *Triennial Review Order* ¶ 262.

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[7] *See* NCTA, *Industry Statistics* (85 million homes have access to cable modem service), *at* http://www.ncta.com/Docs/PageContent.cfm?pageID=86; S.M. Linde, *et al.*, Lehman Brothers, Investext Rpt. No. 7318130, Cable in Transition – Cable Enters the Next Frontier to Meet Its Critics Head On – Industry Report at *106 (Apr. 9, 2003) ("*Lehman Report*") (90 million homes have access to cable modem service); NCTA, *Industry Statistics* (12 million cable modem subscribers as of April 2003), *at* http://www.ncta.com/Docs/PageContent.cfm?pageID=86.

[8] *See* G. Campbell, *et al.*, Merrill Lynch, *Broadband Handbook* at 22 (Feb. 21, 2003) ("*Broadband Handbook*") (60-65% of U.S. homes have access to DSL); J. Bazinet, *et al.*, J.P. Morgan, *The Cable Industry*, Table 4 (Nov. 2, 2001) (estimating 109.3 million households in 2003) (109.3 million x 0.60 = 65.58 million homes with access to DSL); *Lehman Report* at *106 (75 million homes have access to DSL); R. Katz, *et al.*, Bear Stearns, Investext Rpt. No. 7367089, Cable v. DSL: Round II – Industry Report at *5 (May 5, 2003) (5.5 million DSL subscribers as of year-end 2002).

Cable operators also are now expanding the availability of cable modem services to the small fraction of homes they do not presently serve. For example, Comcast spent nearly $1 billion on upgrades in the first quarter of 2003, to end the quarter with more than 86 percent of its footprint upgraded for cable modem service, and plans to spend an addition $1.4 billion this year to bring that total up to 94 percent.[9] Time Warner just reported that it has "completed" upgrades of its entire network to provide cable modem services.[10] Cox and Charter likewise report that plant upgrades are "nearly complete."[11] Cablevision ended 2002 with cable modem service available to 95 percent of its homes passed, and "[b]y late summer 2003 . . . the company's cable network [will] be fully upgraded."[12] Analysts now expect that cable modem service will be available to all cable homes within the next three to five years.[13]

In contrast to the rapid strides made by cable operators, local telephone companies are still playing catch-up, and will be required to make significant additional investments – including in advanced remote terminals – to overcome the inherent limitations of their existing networks and make broadband services more widely available.[14] For example, while each of the major cable operators will have made cable modem service available to between 90 and 100 percent of their homes passed by the end of 2003, the three largest Bell companies – BellSouth, SBC, and Verizon – are expected to have made DSL available to only about 70-80 percent of their homes passed as of that same date.[15] Thus, while Verizon and other Bell companies are reporting that

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9 *See* Comcast Press Release, *Comcast Reports First Quarter 2003 Results* (May 8, 2003).

10 AOL Time Warner, Form 10-Q (SEC filed Aug. 13, 2003).

11 David Pugliese, Vice President, Product Marketing & Management, Cox Communications, *Bundling: Our Competitive Edge*, Presentation Before the Wachovia Securities 13th Annual Nantucket Equity Conference, Nantucket, MA (June 26, 2003) ("[p]lant upgrades [are] nearly complete"); Carl Vogel, President and CEO, Charter Communications, Presentation Before the Credit Suisse First Boston Media Week Conference (Dec. 10, 2002) ("[r]ebuild is nearly complete").

12 N. Gupta, *et al.*, Smith Barney Citigroup, Investext Rpt. No. 7389753, Cablevision Systems Corp. – Company Report at *7 (May 15, 2003).

13 *See*, *e.g.*, *Broadband Handbook* at 22 ("Over the next 3-5 years, we expect essentially all homes passed by cable . . . to have access to cable Internet service."); *Lehman Report* at *56 ("By the end of 2004, [cable] networks should be fully upgraded for two-way capability."); S. Levy, *et al.*, Lehman Brothers, Investext Rpt. No. 7377637, Wireline Equipment – Highlights of Lehman Wireline Conference – Industry Report at *3 (May 9, 2003) ("We believe a majority of the U.S. cable MSOs, with the exception of the former AT&T Broadband properties, and the now bankrupt Adelphia, have completed the vast majority of upgrade and plant rebuilds.").

14 *See*, *e.g.*, *Lehman Report* at *106 ("Even if DSL is available in a market area, there are still technology limitations for the service. A customer must be within three miles of the RBOC's central office. In addition, if the phone lines are spliced with bridge taps . . . or use load coils to boost signals, DSL will not be available."); S. Flannery, *et al.*, Morgan Stanley, Investext Rpt. No. 7382997, Wireline Telecom Services – Ice Age II: The Return of the Scenario Analysis – Industry Report at *16 (May 12, 2003) ("Distance from central offices and the economics of upgrading copper lines are the two main reasons why all Bell access lines are still not DSL-capable."); S. Rosenbush, *Verizon's Gutsy Bet*, BusinessWeek, Aug. 4, 2003, at 52 ("[t]he phone companies 'have to make sizable investments to catch up'" with respect to broadband deployment) (quoting David Watson, Exec. Vice President of Marketing for Comcast); *Broadband Handbook* at 22-23 ("DSL has a coverage disadvantage, but it is narrowing," though "it remains quite expensive to make service available where loop lengths are long.").

15 *See* G. Campbell, *et al.*, Merrill Lynch, *3Q03 Broadband Update* at Table 6 (Nov. 3, 2003) ("*Merrill 3Q03 Broadband Update*").

they plan to invest billions over the next few years on broadband,[16] each of the major cable companies is now reporting that they expect their future levels of investment to decline given that the upgrade of their networks is now largely complete.[17]

As a result of cable's lead in the race to deploy broadband services, there are now many geographic areas where cable modem service is available, but where DSL service is not. By contrast, there are very few areas where DSL is available but that do not also have access to cable modem service. Verizon is unaware of any public sources that attempt to quantify this, so it has conducted its own analysis of the geographic availability of cable modem and DSL services using publicly available databases. Verizon has identified the percentage of homes within the former Bell Atlantic territory that have access to cable or DSL service, or both, using data from the Fourth Quarter 2002 Warren Communications Report on the availability of high-speed cable and DSL offerings by U.S. Census block group. This analysis demonstrates that 37 percent of the households in the study area had access to cable modem service but not DSL; 44 percent had access to both; only 8 percent had access only to DSL; and 10 percent had access to neither.[18]

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16 *See* Verizon Press Release, *Verizon Policy Chief Urges FCC to Act Decisively and Quickly to Assert a Hands-Off Policy for Broadband* (Apr. 28, 2003) ("'We are investing billions to upgrade switching, transport and other parts of our network. We are upgrading our networks to make DSL available to 10 million more households this year.'") (quoting Tom Tauke, Senior Vice President for Public Policy & External Affairs, Verizon); Rosenbush, *et al.*, *Verizon's Gutsy Bet*, Business Week at 52 (Aug. 4, 2003) (Verizon plans to spend $20 billion to $40 billion over the next 10 to 15 years to roll out fiber-optic connections to every home and business in its 29-state territory); C. Haley, *SBC Eyes $500M DSL Push*, Internetnews.com (May 8, 2003) (SBC may spend between $300 and $500 million this year to expand DSL coverage from 66% of its access lines to 75%; Qwest will invest $75 million this year to expand its DSL coverage by 20%), *at* http://internetnews.com/infra/article.php/2203241.

17 *See*, *e.g.*, AOL Time Warner, Form 10-Q, at 27 (SEC filed Aug. 13, 2003) (Time Warner has completed its "upgrades and therefore anticipates a decrease in capital expenditures"); Charter Communications, Form 10-Q, at 40 (SEC filed Aug. 5, 2003) (Charter "expect[s] [its] capital expenditures in 2003 will be lower than 2002 levels because [its] rebuild and upgrade activities are largely completed"); Jim Robbins, President and CEO, Cox Communications, Presentation Before the Morgan Stanley Global Competitive Edge Conference (June 20, 2003) ("[r]ebuild and upgrade capital spending is behind us"); Cablevision Press Release, *Cablevision Reports Second Quarter 2003 Results* (Aug. 5, 2003) (Cablevision reported that capital expenditures for "upgrade/rebuild" were $78 million in the first six months of 2003 versus $119 million in the first six months of 2002).

18 This analysis was performed as follows. The Fourth Quarter 2002 Warren Communications Report identifies cable modem and DSL offerings by U.S. census block group. The 2002 Claritas Report provides total households for each census block group. Using the Warren's data, each census block group was first placed into one of four categories: (i) broadband offered by both cable and Verizon; (ii) broadband offered by cable only; (iii) broadband offered by Verizon only; (iv) no broadband offered. Using Claritas data, Verizon next calculated the total number of households for each category. In doing so, Verizon assumed that where cable modem was offered in a census block group it was offered to all homes within that group. Given that many telephone lines do not qualify for DSL (*e.g.*, many loops are too long) Verizon did not make the same assumption for DSL, but instead used its loop qualification process to determine the percentage of households in each category to which DSL was actually available. Verizon then removed the non-DSL-qualified lines from the totals.

Of course, even in those limited geographic areas where DSL is currently available but cable modem is not, this situation will soon change, as cable operators complete their upgrades. And, in the interim, it is clear that DSL providers could not possibly exercise market power, both because of practical marketing realities, and because it would induce even speedier entry by cable modem and other competitors. DSL is marketed over wide regions using mass-media advertising that includes standard prices and terms. DSL providers could not, therefore, effectively discriminate between the customers in these regions that have access to cable modem service and those that do not. To the contrary, because it is impractical to market these services with prices and terms that vary from area to area, even in those very limited areas where DSL is the only currently available alternative, the prices and terms of that offering are disciplined by the competition provided elsewhere. And, even assuming it were possible to raise the prices of DSL in only limited geographic areas, such actions would ultimately prove fatal, as they would induce even more rapid entry by cable modem providers and other broadband alternatives.

C. Local Telephone Companies Could Not Exercise Market Power in the Provision of Broadband Services to Any Discrete Customer Segments.

Some parties claim that local telephone companies possess market power in the provision of broadband services to discrete customer segments – such as small businesses and large-enterprise customers – which they claim have fewer competitive alternatives than are available to other segments of the broadband market. These claims are at war with the facts. As is true of other segments of the broadband market, the small-business segment is a still-developing market, and, as is also true of other segments of the broadband market, clearly is contestable, and is, in fact, being contested, as a number of competing platform providers move to serve this segment of the market. The large-enterprise segment of the market is the most mature segment, and has long been dominated by the major interexchange carriers who historically have been the only providers able to offer the end-to-end broadband services that large-enterprise customers value most.

1. Local telephone companies could not exercise market power in the provision of broadband services to small-business customers.

The small-business segment of the broadband market is still developing, and is less developed than the broadband services market generally. Broadband providers initially focused either on providing broadband services to residential customers or on providing different broadband services to large-business customers. Consequently, as of 2002, small businesses accounted for no more than 5-10 percent of the total subscribers to mass-market broadband services.[19] Indeed, Verizon and most other ILECs had long been at a disadvantage in this market segment because they provided an asymmetrical DSL service, whereas business users typically desire symmetrical services. However, a number of broadband providers have now tailored their

[19] *See* R. Greenspan, *Big Boosts in Broadband*, CyberAtlas.com (May 20, 2002) (citing estimate by In-Stat/MDR that a third of total business subscribers that use either DSL or cable modem service are small businesses), *at* http://cyberatlas.internet.com/markets/broadband/article/0,1323,10099_1141701,00.html; Yankee Group, *2002 Broadband Subscriber Forecast*, Exh. 5 (Aug. 23, 2002) ("*August 2002 Yankee Group Report*") (10,607,000 cable modem subscribers as of year-end 2002, of which 675,000 are business subscribers; 5,120,000 DSL subscribers as of year-end 2002, of which 1,000,000 are business subscribers).

services specifically to meet the needs of smaller business customers and are moving aggressively to serve this customer segment.[20]

Cable companies – which already dominate the provision of broadband services to residential customers – have been moving particularly fast to provide cable modem services to small-business customers. The National Cable Telecommunications Association recently testified before Congress that cable operators are now "in a position to serve smaller and medium sized businesses, and as the cable modem technology itself is improved so that we can offer usage sensitive and tiered pricing arrangements, increasingly the small business market will be attractive to us."[21] Indeed, six of the seven largest cable system operators (which, collectively, represent over 90 percent of consumer cable modem subscribers) already offer broadband services to small businesses.[22] Each of these cable operators has developed a separately branded service for business customers (*e.g.*, Time Warner's "Road Runner Business Class" and Comcast's "Commercial Internet Service 2.0" and "Comcast Pro"), and several have formed separate business units dedicated to the provision of broadband to business customers (*e.g.*, Comcast Business Communications, Cox Business Services, and Charter Business Networks). *See* Attachment B. They have designed their services to provide the features that small businesses desire, such as high upstream bandwidth (anywhere from 256 Kbps to 3 Mbps) and the ability to use a single connection for multiple computers and e-mail accounts. *See id.*

Cable operators already have been very successful in attracting small-business subscribers. According to analysts, cable operators were providing cable modem service to between 600,000 and 700,000 business subscribers as of year-end 2002,[23] and will be serving nearly 900,000 subscribers by year-end 2003.[24] This figure is projected to as much as triple to 2.2 million within the next three years.[25] By the same token, small businesses spent just over $330 million on cable modem service in 2001, and were expected to spend roughly $800 million

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[20] On July 22, 2003, Verizon filed a tariff with the FCC to provide symmetrical xDSL service. *See* Letter from Richard Ellis, Verizon, to Marlene Dortch, FCC, Transmittal No. 343 (July 22, 2003) (filing revisions to Verizon Tariff F.C.C. Nos. 1 & 20 to introduce Verizon Infospeed Premium Digital Subscriber Line Service, a high-speed symmetrical data-only access service).

[21] Robert Sachs, President and CEO, NCTA, Testimony Before the Subcommittee on Telecommunications and the Internet of the House Committee on Energy and Commerce, Washington, DC (July 21, 2003).

[22] *See* M. Lauricella, *et al.*, Yankee Group, *Cable MSOs: Ready to Take Off in the Small and Medium Business Market* at 4 (Mar. 2002).

[23] *See August 2002 Yankee Group Report* Exh. 5 (675,000 business cable modem subscribers as of year-end 2002); E. Bergstrom & M. Paxton, In-Stat/MDR, *Broadband 2002: DSL & Cable Modem Services Fuel Worldwide Subscriber Growth* at 21 (June 2002) ("*In-Stat/MDR Report*") (613,000 business cable modem subscribers as of year-end 2002).

[24] *See* Yankee Group, *2003 Broadband Subscriber Forecast* (publication forthcoming).

[25] *See In-Stat/MDR Report* at 21 (estimating 2.2 million business cable modem subscribers by 2006); A. Harris & B. Baldwin, IDC, *Worldwide Cable Modem Equipment and Services Forecast and Analysis, 2002-2006*, at 25 (July 2002) (estimating 1.9 million business cable modem subscribers by 2006); Yankee Group, *2003 Broadband Subscriber Forecast* (estimating 1.8 million business cable modem subscribers by 2006).

in 2002.[26] According to In-Stat/MDR, a larger percentage of small businesses are now using cable modem services (40 percent) than the ADSL services offered by local telephone companies (22 percent).[27] A June 2003 Smith Barney report finds that cable MSOs are now capturing over 50 percent of new commercial high-speed Internet customers in their addressable footprint.[28]

Cable operators can readily reach most small-business customers with their existing infrastructure. While it is difficult to obtain figures limited to just small businesses, Credit Lyonnais estimates that "six million small- to medium-sized businesses (SMB) are located within a few hundred feet of the local hybrid fiber/coaxial network . . . [w]ith the current cable infrastructure passing nearly 2.5 million SMBs today."[29] By comparison, there are an estimated 10.5 million small and medium businesses nationwide (2.2 million with 5-99 employees, 85,000 with 100-999 employees, and 8.2 million characterized as small office/home office).[30] Consistent with these figures, Smith Barney estimates that 30 to 50 percent of the small- and medium-enterprise market is located within 50 to 100 feet of existing cable modem networks.[31] Jedai Networks, which develops equipment "intended to enable [cable] MSOs to serve business customers," estimates "that roughly 25% of businesses already have a cable drop, including many in downtown office buildings."[32] And, of course, because smaller businesses tend to be concentrated in areas that cable passes already, the percentage of small businesses passed by cable today is even higher than for small- and medium-sized businesses combined. The Yankee Group has found that 85 percent of very small and small businesses (those with 1 to 19, and 20 to 99 employees, respectively) had at least two broadband choices, usually cable and DSL.[33]

Cable operators themselves have acknowledged that there are many businesses that lie on or in close proximity to their networks, and that it makes sense to serve them. An In-Stat/MDR survey of 50 cable operators conducted in February 2003 found that 62 percent of respondents said they offered some kind of cable modem service to businesses.[34] This includes all of the major cable operators:

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26 *See* R. Greenspan, *Big Boosts in Broadband*, CyberAtlas.com (May 20, 2002) (citing In-Stat/MDR research), *at* http://cyberatlas.internet.com/markets/broadband/article/0,,10099_1141701,00.html.

27 *See* In-Stat/MDR Press Release, *Cable and DSL Fighting for Business Subscribers* (Dec. 12, 2002).

28 *See* Citigroup Smith Barney, *Cable: Capitalizing on the SME Opportunity; Detailed Note* at 3 (June 4, 2003).

29 J. Shim & R. Read, Credit Lyonnais Securities, *The U.S. Cable Industry – Act I* at 196 (Nov. 20, 2002).

30 *See* K. Burney, In-Stat/MDR, *The Big Comeback? Excerpts from 'Business Broadband in a Changed Economy'* at 2, 4 & Fig. 2 (May 2002).

31 *See* Citigroup Smith Barney, *Cable: Capitalizing on the SME Opportunity; Detailed Note* at __ (June 4, 2003).

32 D. Sweeney, *Cable's Plumb Position*, America's Network (July 1, 2002).

33 *See* Yankee Group, *Future of Broadband in the SMB Market* at 21 (Sept. 2002).

34 *See* In-Stat/MDR, *MSO Survey: US Cable Operators Fine Tuning Their Bundle of Digital Services* at 38 (Feb. 2003).

- Time Warner Cable recently stated that "'[w]e've got an infrastructure there that is just ripe for commercial services . . . . We pass 1.2 million businesses . . . .'"[35] According to the company, "'[c]able is not incredibly difficult to get to the business,'" and "'[m]ost RBOCs, CLECs and ILECs have ignored that space.'"[36] Time Warner accordingly "views the SMB market as a high-growth opportunity."[37]

- On July 1, 2003, Comcast launched a marketing campaign in the San Francisco bay area for its Comcast Pro service designed for small-business customers.[38] The company's director of business services stated that "'[o]ur competitors are going to be disappointed that we are going to spoil the market for them.'"[39] The company has elsewhere noted that it now targets "SMBs with 1-100 employees," "Non-profit orgs, schools, government," and "SMBs and Enterprises with telecommuters."[40]

- Charter's business unit has said that its Small Business Internet Service "is designed specifically for small, growing businesses."[41] "'With over 600,000 small- and medium-sized businesses located within reach of our networks, this opportunity is just too good to pass up.'"[42]

- Cox Business Services "serves 19 of the Cox cable markets, covering more than 90 percent of Cox's overall footprint nationally, marketing basic data and video services aggressively to small- and medium-sized businesses the company can

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35 A. Figler, *Turning Businesses into Customers*, CableWorld (Dec. 9, 2002) (quoting Ken Fitzpatrick, senior vice president of commercial services for Time Warner Cable); *see also* M. Stump, *Road Runner Gears Up 'Business Class' Offer*, Multichannel News (Feb. 25, 2002) (Road Runner "is reaching beyond the residential cable-modem market and setting its sights on providing data services to small- and medium-sized businesses." They are "now mapping their territories, overlaying maps of the cable plant with those that show where SMBs are located.").

36 M. Stump, *Road Runner Gears Up 'Business Class' Offer*, Multichannel News (Feb. 25, 2002) (quoting Jason Welz, vice president of commercial services for Road Runner).

37 J. Barthold, *Small Business, Big Money, No Guarantees*, Telephony Online (Aug. 12, 2002), *at* http://telephonyonline.com/ar/telecom_small_business_big/index.htm.

38 *See* R. Mullins, *Comcast Targets Small Biz in Its Broadband Marketing*, Silicon Valley/San Jose Bus. J. (Aug. 4, 2003).

39 *Id.*

40 Jason Livingood, Director of Comcast Commercial Internet Services, *Overview of Cable Modem Offerings for Businesses in Maryland* (Aug. 15, 2002).

41 Charter Business Networks, *Small Business Internet Service*, *at* http://www.charterbusinessnetworks.com/resources/pdfs/sbi.pdf.

42 A. Figler, *Turning Businesses into Customers*, CableWorld (Dec. 9, 2002) (quoting Charter Communications spokesman David Andersen).

easily serve with current network connections."[43] Cox recently reported that more than 320,000 businesses lie within 100 feet of its network, providing Cox a "significant opportunity."[44] Cox Business Services now serves more than 65,000 business customers, and the company's business efforts have grown in the past three years from less than 1 percent of Cox's overall revenue to just more than 5 percent of Cox's consolidated revenue.[45] Cox "has really embraced commercial" services.[46]

- Cablevision offers Business Class Optimum Online for small businesses, with connections speeds up to 10 Mbps downstream and 1 Mbps upstream.[47] "Rather than just concentrating on customers that are easy to connect to the existing network, the business sector opportunity has 'actually helped us build the network into the business areas and business parks.'"[48] Kevin Curran, senior vice president of marketing and sales for Cablevision Lightpath, stated that "[w]e can't keep up with demand."[49]

Analysts have recently begun to take note of the significant strides that cable operators are making in serving small-business customers. In-Stat has noted that "'certain operators, such as Cox and Comcast, have been really pushing marketing efforts towards the business community.'"[50] The Yankee Group has noted that "'Cox and Time Warner have really been forging ahead with it and have really been successful with offering business-class services.'"[51] The Yankee Group recently changed the assessment it has made in each of the last three years that DSL would achieve dominance over cable in the low end of the business market, and now holds that "cable modem providers are anticipated to make a significant impact on the business segment."[52]

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43 D. Hayes, *Pickers' Dilemma*, CED (Sept. 2002), *at* http://www.cedmagazine.com/ced/2002/ 0902/09a.htm; *see also* Jim Robbins, President and CEO, Cox Communications, Presentation to the Sanford Bernstein 19th Annual Strategic Decisions Conference (June 2003) (Cox is leveraging its residential infrastructure for its business offering).

44 Jim Robbins, President and CEO, Cox Communications, Presentation to the Sanford Bernstein 19th Annual Strategic Decisions Conference (June 2003).

45 *See A Snapshot of the Cox Business Strategy*, Interview with Coby Sillers, Vice President and General Manager for Cox Business Services, Xchange Mag. (June 1, 2003).

46 *Id.*

47 *See* Cablevision Lightpath, *Business Class Optimum Online*, *at* http://www.lightpath.net/solutions/ internet/business/bcinfo.html.

48 J. Barthold, *Small Business, Big Money, No Guarantees*, Telephony Online (Aug. 12, 2002) (quoting Kevin Curran, senior vice president of marketing and sales for Cablevision Lightpath), *at* http://telephonyonline.com/ar/telecom_small_business_big/index.htm.

49 *Id.*

50 R. Mullins, *Comcast Targets Small Biz in Its Broadband Marketing*, Silicon Valley/San Jose Bus. J. (Aug. 4, 2003) (quoting Mike Paxton, In-Stat/MDR senior analyst).

51 P. Bernier, *The Business of High-Speed Cable Service*, Xchange Mag. (June 1, 2003) (quoting Yankee Group analyst Lindsay Schroth).

52 Yankee Group, *2003 Broadband Subscriber Forecast*.

Moreover, these trends are rapidly accelerating, as cable operators are increasingly offering telephony services that can be bundled with broadband services to serve all the telecom needs of small-business customers.[53] In addition to the fact that two of the major cable operators – Comcast and Cox – already offer circuit-switched cable telephony to large fractions of their total footprint, all of the major cable operators have announced plans soon to deploy IP cable telephony, which is becoming increasingly popular among business customers.[54] Indeed, a number of major cable operators – including Time Warner, Cablevision, and Charter – have begun deploying the service commercially, and every other major cable operator is currently conducting trials of IP telephony and has announced plans for commercial deployment.[55] Cablevision plans to deploy cable IP telephony across its entire footprint – consisting of 4.4 million homes in New York, New Jersey, and Connecticut – by the end of 2003.[56] Cox has recently announced that "it will be proceeding from trial to launch with VoIP in Roanoke, Virginia in 4Q03."[57] Merrill Lynch recently noted that "trials and deployments involving VoIP technology [by cable operators] are now gaining momentum in both the enterprise segment and in the residential market."[58] It predicts that, "[i]n the small/medium business segment, . . . cableco network investments made for the residential triple play could be leveraged to connect additional customers. Virtual VoIP operators are already targeting this market, offering both cost reductions and also innovative features such as 'virtual' numbers."[59]

In addition to cable operators, two DBS providers – Hughes and Starband – have introduced two-way broadband services designed specifically for small businesses, and fixed wireless and other emerging technologies such as 3G wireless and Wi-Fi also are potential alternatives.

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53 According to the Yankee Group, "10% of the SMB market for data and voice communications services is currently being served by cable operators in North America. The business services over cable subscriber base should grow over 13% annually for the next five years." Juniper Networks, Solutions Brief, *Delivering Business Services over Cable* at 2 (Apr. 2003).

54 An In-Stat survey found that, as of year-end 2002, 2 percent of all U.S. businesses, or 260,000 firms, were using some sort of IP telephony solution. The same survey found that, by 2007, 19 percent of all firms, or 2.2 million firms, will be using IP telephony in some form. *See* Communications Daily, Aug. 12, 2003, at 8.

55 *See*, *e.g.*, G. Campbell, *et al.*, Merrill Lynch, *3Q03 Broadband Update* at 9 (Nov. 3, 2003) ("*3Q03 Broadband Update*") ("Comcast disclosed in early October to the Wall Street Journal plans to expand its VoIP trials to include three new markets in 2004: Hartford, Indianapolis and Springfield (in addition to the current trial in Philadelphia). Comcast expects commercial service launches late next year or early in 2005. . . . On the 3Q conference call, management noted that the economics of VOIP look increasingly attractive and that they see it as a potentially important source of growth in 2005 and beyond."); *id.* ("Cox indicated that it will be expanding its VoIP trial in Roanoke, Virginia, established in April 2003, to a full launch.").

56 *See Merrill 3Q03 Broadband Update* at 15.

57 *Id.*

58 J. Moynihan, *et al.*, Merrill Lynch, *Voice over Broadband* at 2 (June 24, 2003).

59 *Id.* at 5-6; *see also 3Q03 Broadband Update* at 1 (VoIP services "could reinforce cable's lead in HSD and open the door to new market opportunities – for example, the small business sector").

Hughes offers "DIRECWAY Business Edition . . . for owners of small and medium-size businesses who want the rich experience and benefits of fast Internet access."[60] Compared to its two-way residential service, Hughes' business service offers "increased download capacity, larger data volume, and support for multiple users."[61] DIRECWAY Business Edition services also now offers VoIP as an additional feature.[62] Hughes also has announced that it was proceeding on schedule with its plans to deploy a new satellite-based service – the $1.8 billion Spaceway project – that is designed to provide broadband to small- and large-business customers.[63] A second satellite provider, StarBand, offers its "StarBand Small Office" package, which provides businesses "world-class, two-way, always on, high-speed Internet access," and includes support for multiple users and Web hosting capabilities.[64] In January 2003, Starband unveiled a new service, Starband 480 Pro, a "professional-strength, network-ready, business-grade satellite modem delivering faster speeds, instant networking capability and enhanced software" that "make[s] it extremely attractive to small businesses and corporate teleworkers."[65]

Fixed wireless also continues to be a viable alternative for high-speed Internet access for many small businesses. Both Teligent and WinStar have emerged from bankruptcy and are offering fixed wireless broadband services in a large number of markets.[66] Chairman Powell recently stated that he was "extremely impressed" with the fixed wireless broadband services that are being provided by Roadstar Internet to business customers in rural Virginia, a technology he described as "the face of things to come," and that could indeed be provided nationwide using unlicensed spectrum.[67]

Both Wi-Fi and 3G wireless provide potential alternatives as well. Vivato has recently developed the capability to use Wi-Fi technology – which many small businesses already are using for their internal networks – to provide last-mile high-speed Internet access.[68] Vivato recently raised $44.5 million,[69] and began shipping an outdoor Wi-Fi switch in May 2003 that

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60 DIRECWAY, *DIRECWAY Business Edition*, *at* http://be.direcway.com.

61 *Id.*

62 *See* DIRECWAY, *Find Out More*, *at* http://be.direcway.com/newcustomers.html.

63 *See* A. Pasztor, *Hughes Expects to Pull Plug on Web-Offering Initiatives*, Wall St. J., Dec. 12, 2002.

64 StarBand, *Starband Small Office*, *at* http://www.starband.com/smalloffice/more.asp. On August 15, Starband filed a reorganization plan with the bankruptcy court to exit Chapter 11. Starband expects to receive court approval for the agreement by year-end 2003. *See* Starband Press Release, *Starband Files Plan of Reorganization to Exit Chapter 11* (Aug. 15, 2003).

65 Starband Press Release, *Starband to Launch Professional-Strength '480 Pro' Satellite Modem* (Jan. 9, 2003).

66 *See* Teligent News Release, *Teligent Announces Lender Support for Fixed Wireless Successor Company* (Jan. 22, 2002); IDT Press Release, *IDT Corporation Announces That Winstar Will Become IDT Solutions* (Dec. 12, 2002).

67 G. Witte, *Bringing Broadband Over the Mountain: Roadstar Puts Wireless Technology to the Test*, W. Post, Sept. 15, 2003, at E1.

68 *See*, *e.g.*, Peter Cohen, *Vivato's 'Wi-Fi Switch' Provides Large-Scale Coverage*, MacCentral (Nov. 4, 2002), *at* http://maccentral.macworld.com/news/0211/04.vivato.php.

69 *See* Vivato Press Release, *Vivato Raises $44.5 Million in Series C Funding Round* (June 23, 2003).

allows carriers to extend the coverage of their Wi-Fi/WLAN systems.[70] Vivato's outdoor switch "'completely changes the value proposition for service providers; making it practical to deliver Wi-Fi to entire office buildings, campuses, warehouses, arenas, shopping malls and airports.'"[71] Mobile wireless providers are now in the process of deploying 3G wireless services that provide broadband capabilities and are ideal for use by small businesses.[72] As the FCC has noted, "[t]he successful deployment of 3G services may significantly expand availability of advanced services, especially to consumers that are currently unserved by wireline connections."[73]

2. Local telephone companies could not exercise market power in the provision of broadband services to large enterprise customers.

Large-enterprise customers have been purchasing high-speed data services far longer than other segments of the broadband market, and this segment of the market is accordingly the most mature. It is also different from other segments of the broadband market in its national scope. It is comprised of customers that typically demand end-to-end services provided across LATAs, states, and often countries. *See*, *e.g.*, *Triennial Review Order* ¶ 302 ("Enterprise market customers . . . prefer a single provider capable of meeting all their needs at each of their business locations which may be in multiple locations in different parts of the city, state or country.").

In analyzing competition for this segment of the market, therefore, the inquiry is very different from the analysis in the *Triennial Review Order* of whether competing carriers are impaired in the deployment of facilities to enterprise customers. In the *Triennial Review Order*, the Commission adopted a framework for a "granular route-specific review" to identify the precise locations where competitive local facilities have been deployed. Regardless of the merits of the Commission's decision in that context, what is at issue here are sophisticated data services that are provided on a nationwide basis, either on some carriers' nationwide networks or by stringing together the networks of multiple carriers. There can be no serious dispute that, for these services, there is extensive competition and that local telephone companies could not possibly exercise market power.

As the Commission has recognized, competitive carriers first began providing high-speed data services to large businesses in central business districts more than 15 years ago.[74] Today, the largest providers of broadband services to enterprise customers by far are AT&T and MCI. These two carriers control nearly two-thirds of the nationwide market for Frame Relay and

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70 *See* Vivato Press Release, *Vivato Redefines Wireless LAN Coverage with Industry's First Outdoor Wi-Fi Switch* (Mar. 17, 2003).

71 *Id.* (quoting Vivato chairman and CEO Ken Biba).

72 *See*, *e.g.*, *Third Advanced Services Report* ¶ 80 ("Providers are beginning to deploy third generation wireless (3G) systems."); AT&T Wireless Press Release, *AT&T Wireless Outlines Actions It Will Take to Meet 2003 Goals* (Jan. 28, 2003) (announcing plans to rollout W-CDMA in four cities (Dallas, San Diego, San Francisco, and Seattle) by year-end 2004).

73 *Third Advanced Services Report* ¶ 80.

74 *See*, *e.g.*, Expanded *Interconnection with Local Telephone Company Facilities, Amendment of the Part 69 Allocation of General Support Facility Costs*, Report and Order and Notice of Proposed Rulemaking, 7 FCC Rcd 7369, ¶ 4 (1992).

ATM, which are the primary broadband services used by enterprise customers.[75] As one analyst has noted, these carriers "own the U.S. frame relay market, have scale economies and are best positioned to influence users and move the market."[76] These two carriers also dominate the enterprise market as a whole. According to a Merrill Lynch report, for example, AT&T and MCI now control approximately 59 percent of all corporate accounts.[77] AT&T's Chairman has recently boasted that the company is now "serving virtually all Fortune 1,000 companies"[78]

Numerous other competing carriers also provide broadband services to large-business customers.[79] According to data that competing carriers report to the FCC, CLECs as a whole serve 23 percent of the lines provided to "medium and large business, institutional, and government users," not even counting the tens of millions of high-capacity data lines that these carriers provide to enterprise customers.[80] Competing carriers earn approximately half of all their revenues from data services.[81] As Morgan Stanley notes, "[i]n the enterprise market, competition remains intense in the small and medium and the large enterprise segments."[82]

While the Bell companies compete in the provision of these services as well, they are playing catch-up because they had been limited in the right to provide interLATA packet-switching services, despite the fact that customers typically desire a single carrier to provide both

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75 *See* R. Kaplan, IDC, *U.S. Frame Relay Services Forecast and Analysis, 2001-2006*, Fig. 4 (Apr. 2002) ("*IDC Frame Relay Report*") (AT&T and WorldCom accounted for approximately 68% of the nationwide frame relay market in 2001); R. Kaplan, IDC, *U.S. ATM Services Forecast and Analysis, 2001-2006*, Fig. 4 (June 2002) ("*IDC ATM Report*") (AT&T and WorldCom accounted for 44% of the nationwide ATM market in 2001) (AT&T and WorldCom accounted for 63.3% of the combined nationwide ATM/frame relay market in 2001, based on revenue).

76 Stratecast Partners, *ATM and Frame Relay Market Assessment* at 12 (Sept. 2001) ("*Stratecast ATM/Frame Relay Report*").

77 A. Quinton, et al., Merrill Lynch Capital Markets, Investext Rpt No. 7207766, The Telecommunicator – WorldCom Survey Results – Industry Implications – Industry Report at * 2-3 (Feb. 6, 2003).

78 Presentation of David Dorman, Chairman and CEO, AT&T, Goldman Sachs Communacopia XII Conference, at 4 (Oct. 1, 2003).

79 The FCC already has recognized that "it is precisely in the provision of services like frame relay that competition is most intense, and we acknowledge the sensitivity of the LECs' position as they face increasing competition, especially regarding these services that are likely to be related to nonregulated and highly competitive services." *Policy and Rules Concerning Rates for Dominant Carriers*, Memorandum Opinion and Order, 8 FCC Rcd 7474, ¶ 63 (1993).

80 Industry Analysis and Technology Division, Wireline Competition Bureau, FCC, *Local Telephone Competition: Status as of December 31, 2002* at Table 2 (June. 2003); *Triennial Review Order* ¶ 300 & n.872 (acknowledging that the FCC's data "does not count" high-capacity "special access lines"); *AT&T 2Q Earnings Conference Call* (July 23, 2002) (AT&T provides "more than 40 million DS0 equivalents," the majority of which are high-capacity data lines provided to enterprise customers).

81 New Paradigm Resources Group, *CLEC Report 2003*, Chapter 2 at 19 (17th ed., 2003).

82 Morgan Stanley Equity Research, *Wireline Telecom Services – Ice Age II: The Return of the Scenario Analysis* at 34 (May 12, 2003).

intraLATA and interLATA packet switching.[83] As Morgan Stanley has recently found, "the Bells do not yet have the capabilities to compete" in the "large enterprise market."[84] The Bell companies represent only 14 percent of the revenues for broadband services provided to large-enterprise customers.[85] Verizon's share of the nationwide market for these services is less than 3.5 percent.[86] Thus, local telephone companies plainly do not have market power in the provision of broadband services to large-enterprise customers, and there is no basis to continue to regulate them as if they did.

Conclusion

The Commission has already recognized that unnecessary regulation acts as an impediment to much-needed investment for advanced services. Because all telco-provided broadband services face significant competitive alternatives, including cable operators in every geographic market and for all customer segments, the Commission should remove them from existing Title II obligations.

Sincerely,

/S/ Dee May

cc: W. Maher
M. Carey
B. Olson
W. Kehoe

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83 As noted by industry analysts and CLECs alike, Bell companies had been limited in their broadband offerings due to restrictions on the provision of interLATA services. *See*, *e.g.*, *Stratecast ATM/Frame Relay Report* at 12 ("Thus far, the RBOCs have held a very small share of the frame relay market, primarily because they have only been allowed to offer intra-LATA services."); MCI WorldCom, *Metro Frame Relay Service* (WorldCom's Metro Frame Relay service "offers an aggressive price position compared to that offered by LECs. LECs can offer local (intraLATA) service, but they aren't able to cross LATA boundaries or move into other Regional Bell Operating Company (RBOC) territories. WorldCom is in the unique position to provide both interLATA (IXC) and intraLATA frame relay service by capitalizing on our wholly-owned nationwide network."), *at* http://www.isp-select.com/MCI/Frame_Relay1.htm.

84 Morgan Stanley Equity Research, *Wireline Telecom Services – Ice Age II: The Return of the Scenario Analysis* at 34 (May 12, 2003).

85 *See IDC ATM Report* Fig. 4 (the Bell companies accounted for 16.5% of the nationwide ATM market in 2001); *IDC Frame Relay Report* Fig. 4 (the Bell companies accounted for 14% of the nationwide frame relay market in 2001) (the Bell companies accounted for approximately 14% of the nationwide ATM/frame relay market in 2001, based on revenue).

86 *See IDC ATM Report* Fig. 4 (Verizon accounted for 3.6% of the nationwide ATM market in 2001); *IDC Frame Relay* Report Fig. 4 (Verizon accounted for 3.4% of the nationwide frame relay market in 2001) (Verizon accounted for approximately 3.44% of the nationwide ATM/frame relay market in 2001, based on revenue).

I. FCC orders:

Order, *Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier*, 11 FCC Rcd 3271, 3307 ¶ 68 (1995) (finding that AT&T was nondominant in the domestic long distance market even though it enjoyed a market share of approximately 60 percent; "[m]arket share alone is not necessarily a reliable measure of competition, particularly in markets with high supply and demand elasticities") (internal quotation omitted);

Order, *Motion of AT&T Corp. to be Declared Non-Dominant for International Service*, 11 FCC Rcd 17963, 17978 ¶¶ 39-41, 17998 ¶ 96 (1996) (same in the international long distance market; in addition, the Commission decided to forbear from regulating AT&T as a dominant carrier for international service for four countries where AT&T faced *no* competition (*i.e.*, had 100% market share) on the ground that "historical trends suggest the strong possibility that more than one U.S. facilities-based carrier will soon enter these four markets");

Order, *Competition in the Interstate Interexchange Marketplace*, 6 FCC Rcd 5880, 5890 ¶ 51 (1991) ("market share alone is not necessarily a reliable measure of competition, particularly in markets with high supply and demand elasticities");

See also Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd 16978, 17136 ¶ 263 (2003) ("*Triennial Review Order*") ("the fact that broadband service is actually available through another network platform *and may potentially be available through additional platforms* helps alleviate any concern that competition in the broadband market may be heavily dependent upon unbundled access") (emphasis added).

II. Case law:

Time Warner Entertainment Co. v. FCC, 240 F.3d 1126, 1134 (D.C. Cir. 2001) (explaining that "normally a company's ability to exercise market power depends not only on its share of the market, but also on the elasticities of supply and demand, which in turn are determined by the *availability* of competition," and ordering FCC to consider the impact of DBS on cable companies' market power in light of recent "technological and regulatory changes") (emphasis in the original);

United States v. Waste Mgmt., Inc., 743 F.2d 976, 982 (2d Cir.1984) ("market share statistics [may not be] . . . an accurate proxy for market power when substantial potential competition able to respond quickly to price increases exists");

See also Jefferson Parish Hospital District No. 2 v. Hyde, 466 U.S. 2, 37 n.7 (1984) (O'Connor, J., concurring in the judgment) ("A common misconception has been that a patent or copyright, a high market share, or a unique product that competitors are not able to offer suffice to demonstrate market power. While each of these three factors might

help to give market power to a seller, it is also possible that a seller in these situations will have no market power: for example, a patent holder has no market power in any relevant sense if there are close substitutes for the patented product. Similarly, a high market share indicates market power only if the market is properly defined to include all reasonable substitutes for the product.") (citing Landes and Posner, *Market Power in Antitrust Cases*, 94 Harv.L.Rev. 937 (1981));

United States v. Baker Hughes, Inc., 908 F.2d 981, 986 (D.C. Cir. 1990) (market share is "misleading" in a "volatile and shifting" market).

III. FTC/DOJ Horizontal Merger Guidelines:

1.52 Factors Affecting the Significance of Market Shares and Concentration

The post-merger level of market concentration and the change in concentration resulting from a merger affect the degree to which a merger raises competitive concerns. However, in some situations, market share and market concentration data may either understate or overstate the likely future competitive significance of a firm or firms in the market or the impact of a merger. The following are examples of such situations.

1.521 Changing Market Conditions

Market concentration and market share data of necessity are based on historical evidence. However, recent or ongoing changes in the market may indicate that the current market share of a particular firm either understates or overstates the firm's future competitive significance. For example, if a new technology that is important to long-term competitive viability is available to other firms in the market, but is not available to a particular firm, the Agency may conclude that the historical market share of that firm overstates its future competitive significance. The Agency will consider reasonably predictable effects of recent or ongoing changes in market conditions in interpreting market concentration and market share data.

IV. Academic commentary:

Christopher Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 Yale J. on Reg. 171, 280 (Winter 2002) ("[E]xplosive growth of the kind that the broadband transport industry is currently undergoing can render the network externalities largely irrelevant [and permit rapid market entry]. As Stan Liebowitz and Stephen Margolis have observed, 'If a market is growing rapidly, the number of users who have made commitments to any standard is small relative to the number of future users.' In such cases, the fact that a particular firm may currently dominate a market is of little consequence. People concerned about lock-in will focus on the size of the network that will exist in the future, not the size of the one that exists today.") (footnote omitted; quoting S.J. Liebowitz & S. Margolis, *Should Technology Choice Be a Concern of Antitrust Policy*, 9 Harv. J.L. & Tech. 283, 310, 312 (1996)) (footnotes omitted); *see also id.* (citing M. Katz & C. Shapiro, *Product Introduction with Network Externalities*, 40 J. Indus. Econ. 55, 73 (1992) (concluding that exponential market growth effectively prevents excess inertia)).

V. Broadband-specific market conditions:

Inquiry Concerning the Deployment of Advanced Telecommunications Capability, Report, 14 FCC Rcd. 2398, ¶ 48 (1999) ("*First Advanced Services Report*") ("The preconditions for monopoly appear absent . . . . [W]e see the potential for this market to accommodate different technologies such as DSL, cable modems, utility fiber to the home, satellite and terrestrial radio");

Inquiry Concerning the Deployment of Advanced Telecommunications Capability, Third Report, 17 FCC Rcd. 2844, ¶¶ 79-88 (2002) (describing development of intermodal competition in broadband market);

Notice of Proposed Rulemaking, *Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services,* 16 FCC Rcd. 22,745 ¶ 5 (2001) ("[T]he one-wire world for customer access appears to no longer be the norm in broadband services markets as the result of the development of intermodal competition among multiple platforms, including DSL, cable modem service, satellite broadband service, and terrestrial and mobile wireless services.");

Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services, Third Report and Order and Memorandum Opinion and Order, 15 FCC Rcd. 11857, ¶¶ 17, 19 (2000) (noting with approval "a continuing increase in consumer broadband choices within and among the various delivery technologies," which indicates that "no group of firms or technology will likely be able to dominate the provision of broadband services");

Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from MediaOne Group, Inc., Transferor, to AT&T Corp., Transferee, Memorandum Opinion and Order, 15 FCC Rcd. 9816, ¶ 116 (2000) (finding that cable operators, despite having a commanding share of the broadband market, face "significant actual and potential competition from . . . alternative broadband providers");

Notice of Proposed Rule Making, *Carrier Current Systems, including Broadband over Power Line Systems; Amendment of Part 15 regarding new requirements and measurement guidelines for Access Broadband over Power Line Systems*, ET Docket Nos. 03-104 & 04-37, at ¶ 30 (FCC rel. Feb. 23, 2004) ("Since Access BPL uses the same power lines that carry electricity virtually everywhere, much of the infrastructure needed to operate this technology is already in place, so that major savings in deployment costs and capital may be realized in its deployment.");

See also President Unveils Tech Initiatives for Energy, Health Care, Internet Remarks by the President at American Association of Community Colleges Annual Convention

Minneapolis Convention Center Minneapolis, Minnesota (April 26, 2004) (www.plca.net/bushspeech.pdf) ("So how is some guy in remote Wyoming going to get any broadband technology? Regulatory policy has got to be wise and smart as we encourage the spread of this important technology. There needs to be technical standards to make possible new broadband technologies, such as the use of high-speed communication directly over power lines. Power lines were for electricity; power lines can be used for broadband technology. So the technical standards need to be changed to encourage that.");

Remarks of Michael K. Powell, Chairman, FCC, at the Kansas Rural Broadband and Telemedicine Summit, Lawrence, KS (Feb. 20, 2004), at 5 ("[B]roadband over powerline technology (BPL) has the potential to speed access to every home already on the power grid using existing lines. BPL could also improve the provision and management of electric power systems, enhance homeland security, and protect vital elements of our Nation's critical infrastructure.").